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| 10/707,052      | 11/18/2003  | Gary A. Deeter       | JD-253 A            | 1051             |

25884 7590 02/23/2005

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| EXAMINER |
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WOODWARD, ANA LUCRECIA

|          |              |
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| ART UNIT | PAPER NUMBER |
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1711

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/707,052

Applicant(s)

DEETER, GARY

Examiner

Ana L. Woodward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/20/2004, 7/13/2004
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 6, 7, 20, 21 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-36 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-19, 22-26 and 28-36 is/are rejected.
- 7) ☐ Claim(s) 1-36 is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/20/04, 7/13/04

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-19 and 22-36, drawn to a thermoplastic composition, classified in class 525, subclass various.
  - II. Claims 20 and 21, drawn to molded articles, classified in class various, subclass various.

2. The inventions are distinct, each from the other because:

Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a molding composition in the production of films or coatings and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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4. Claims 1-36 are generic to a plurality of disclosed patentably distinct species comprising the host polymer. The election of an ultimate species of host polymer is requested. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. During a telephone conversation with Ms. Renee J. Rymarz on February 16, 2005 a provisional election was made with traverse to prosecute the invention of group I comprising polycarbonate as the host polymer, claims 1-5, 8-19, 22-26 and 28-36. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6, 7, 20, 21 and 27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

6. Claims 8, 17, 22- 26 and 31-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claims 8 and 24, it is unclear as to whether the recited amounts are based solely on the sum of components (a) and (b), as opposed to the total composition.

In claim 17, it is unclear if or how maleic anhydride species can be definitive of the (meth)acrylate monomer genus.

Claim 24 language, “comprising mixing *with the host polymer and a flow modifier polymer*” is confusing since it is unclear as to whether the flow modifier is added to a premixture of the host polymer and flow modifier.

In claim 31, “additive juicing” is indefinite as to scope and meaning.

In claims 32 and 33, it is unclear if or how “a” maximum shear rate limits the claims.

***Claim Rejections - 35 USC § 102/103***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5, 8, 9 and 11-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 3,948,674 (Coaker et al).

Coaker et al disclose improved thermoplastic resin compositions which contain an acrylic homopolymer or copolymer as a lubricant. The lubricant polymers have average molecular weights of from about 2,000 to about 10,000 and include homopolymers or copolymers of alkyl acrylate esters wherein the alkyl radical contains from 1 to 24 carbon atoms (column 5, line 57 – column 6, line 24). The compositions comprise about 0.001 to 8.0 parts by weight of the lubricant polymer for each 100 parts by weight of thermoplastic resin (column 7, lines 1-5).

In examples 65-67, patentees show compositions comprising 100 parts by weight of polycarbonate, reading on applicants' elected host polymer, with 2 parts by weight of a lubricant copolymer of 30 parts by weight ethyl acrylate and 70 parts of 2-ethylhexyl acrylate having a molecular weight of 4,690, reading on applicants' flow modifier derived from at least one (meth)acrylate monomer.

Since the compositions of the reference contain essentially the same components as applicants', it is reasonable to believe that they will meet all the characteristics governing the present claims. The onus is shifted to applicants to establish that the product of the present claims is not the same as or obvious from that set forth by the reference.

10. Claims 1-3, 8, 9, 11-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 4,286,021 (Brendley, Jr.).

Brendley, Jr. discloses powder coatings containing a copolymer of esters of bicyclic alcohols and unsaturated acids, such as isobornyl methacrylate, as a melt flow modifier. The modifiers have average molecular weights of 1,000 to 8,500 and comprise i) 40-60 percent by weight of an ester of bicyclic alcohol and an unsaturated acid and ii) 40-60 percent by weight of styrene, vinyl toluene, or, preferably, at least one ester of (meth)acrylic acid (column 2, lines 37-

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55). The modifiers are compatible with essentially all types of coating resins known to be useful in power coating methods. Exemplary resins include polycarbonate (column 6, line 52).

In examples 5 and 6, the reference discloses compositions comprising polymers of methyl methacrylate, reading on applicants' host polymer, and a melt flow modifier comprising a copolymer of methyl methacrylate and isobornyl methacrylate, reading on the presently claimed flow modifier polymer.

Since the compositions of the reference contain essentially the same components as applicants', it is reasonable to believe that they will meet all the characteristics governing the present claims. The onus is shifted to applicants to establish that the product of the present claims is not the same as or obvious from that set forth by the reference.

***Claim Rejections - 35 USC § 103***

11. Claims 4, 5, 10, 22-26 and 28-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,286,021 (Brendley, Jr.) described hereinabove.

The reference differs in essence from the above-rejected claims either in not expressly exemplifying applicants' specific host polymers or applicants' specific flow modifier copolymers comprising a combination of (meth)acrylate monomers and vinyl aromatic monomers. With respect to the host polymer, while the reference does not expressly exemplify applicants' preferred polymers, such as polycarbonates, they are included in the general disclosure of suitable polymers that are compatible with the melt flow modifier. Accordingly, their use would have been obvious to one having ordinary skill in the art with the reasonable expectation of success. As to the use of a melt flow modifier comprising units derived from both (meth)acrylate and vinyl aromatic monomers, such are clearly included in the reference's

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disclosure of suitable copolymers (column 2, lines 37-52). Accordingly, applicants' specific flow modifier copolymers would have been obvious to one having ordinary skill in the art with the reasonable expectation of success.

As to the process processing temperatures of the present process claims, attention is directed to the same temperatures used in the examples. The reference by being silent relative to the maximum shear rate permitted implicitly suggests that any shear rate, inclusive of that claimed, can be satisfactorily used.

#### ***Prior Art***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

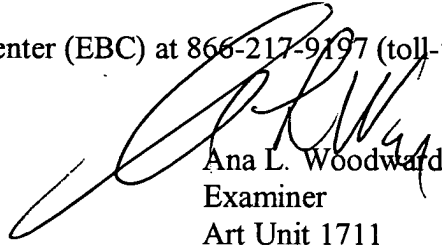
#### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ana L. Woodward  
Examiner  
Art Unit 1711

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